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The Public Role in Private Post-Secondary Education

A Review of Issues and Options

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Should private educational institutions be encouraged, through financial incentives and constraints, to play more of a role in post-secondary education? What public policies, subsidies, and regulations should be used to influence them?

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Can private educational institutions, responding to financial incentives and constraints, play more of a role in helping society provide efficient and equitable post-secondary education? This question is important because budget constraints are forcing developing countries to look for alternatives to heavily subsidized public services. The authors review the literature, focusing on how public subsidies can be used to meet social objectives when education is privately provided.

The appropriate level of public subsidy to private post-secondary education hinges in part on the extent to which social exceed private benefits.

In recent years there is increasing evidence in many developing countries of a growing problem of graduate unemployment and tendencies toward "credentialism" in the allocation of desirable jobs in the public sector and elsewhere. Higher education is also perceived as a socially unproductive but privately profitable screen or signalling device. The authors argue that public subsidies should be targeted toward disciplines that have high social returns. They call for more empirical work to allow policymakers to distinguish among activities.

If subsidies are to be used to make private higher education more accessible to the poor, a

strong case can be made for targeted subsidies such as scholarships and/or loan guarantees available only to students from low-income families (and only to low-income students with good marks, if one goal is efficiency).

A general subsidy to all post-secondary students, designed to allow low-income students to attend school, might have a regressive impact because children from higher-income families are more likely to use the subsidy than children from low-income families — all the more so if the subsidy is rationed by good marks.

The paper also discusses ways to promote quality among private institutions. Certain government policies may influence higher education at least as much as various forms of direct regulation or subsidy. The most efficient way to make schools better is probably to design an incentive system that rewards institutions on the basis of how their graduates perform — although this might favor students from high-income families.

In addition, inappropriate labor market legislation and government behavior as an employer may have contributed to problems of graduate unemployment, credentialism, and a generally swollen bureaucracy in some countries.

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CONTENTS

	Page
EXECUTIVE SUMMARY	1
I. INTRODUCTION	1
II. OVERVIEW OF PRIVATE HIGHER EDUCATION IN DEVELOPING COUNTRIES	2
III. THE ROLE OF GOVERNMENT IN PRIVATE HIGHER EDUCATION	7
A. Imperfections on the Demand Side	8
B. Imperfections on the Supply Side	13
C. Private Higher Education and Equity	16
IV. POLICIES TOWARD PRIVATE HIGHER EDUCATION	18
A. Financial policies towards private institutions	19
B. Government regulation of private educational institutions . . .	26
C. Government policies in the markets for educated labor.	35
V. SUMMARY AND CONCLUSIONS	37
BIBLIOGRAPHY	41

List of Tables

Table 1: Enrollment in Private Post-secondary Institutions in Latin America (Percent of total enrollment)
Table 2: Asian Countries, Share of Private Institutions in Total Enrollment
Table 3: Trends and/or Actual Share of Enrollment in Private Higher Education Institutions. Selected developing countries (circa 1980)
Table 4: Enrollment by Field of Specialization Selected Countries Percent of Total Enrollment, Private/Public Universities
Table 5: Sources of Finance in Latin American Universities (Percent of total revenue)
Table 6: Sources of Finance in Private Higher Education Institutions in Selected Asian Countries

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EXECUTIVE SUMMARY

The fundamental question considered in this paper is whether private educational institutions, responding to financial incentives and constraints, can play an expanded role in helping attain society's objectives with respect to the efficiency and equity of the system of post-secondary education.

With respect to the efficiency issue, the key question is whether the social benefits of higher education tend to exceed or fall short of the private benefits. Traditionally, the presumption has been that factors such as capital market imperfections, and the general scarcity of educated manpower in many developing countries, have led to a situation where the social exceeded the private benefits. However, in recent years there has been evidence in many developing countries of a growing problem of graduate unemployment, and tendencies toward "credentialism" in the allocation of desirable jobs in the public sector and elsewhere. In addition, the perception of higher education serving as a socially unproductive but privately profitable screen or signalling device may be as relevant in some developing countries as in the industrialized nations for which the screening theories were originally developed. If so, the private benefits for many types of higher education are higher than the social. This clearly would have important implications for the question whether higher education should be subsidized. Because this question is so important, more empirical work on these issues should be a high priority.

Private post-secondary education also raises several important equity issues. In some respects, there is no conflict between the equity and efficiency objectives: policies that counteract the effects of capital market imperfections, especially for low-income families, are an example. On the other hand, there are other types of equity-oriented policies that do pose a conflict with the efficiency objective. An example is a general subsidy to all post-secondary students as a means of allowing low-income students access to universities. Such a subsidy is likely to have a regressive impact because children from higher-income families are more likely to make use of the subsidy than children from low-income families. This impact may be exacerbated if access to the subsidy is rationed by marks, for similar

reasons. If higher education serves primarily as a screen or signalling device, the regressive impact may be even worse, since an education subsidy will then in effect reduce the cost to individuals who are fortunate enough to have high productivity to begin with. In addition, when education primarily serves a screening function, its private profitability is likely to be considerably higher than its social profitability. Thus, general subsidies to post-secondary education will be inconsistent with the efficiency objective as well.

On the whole, the general subsidization of higher education may be a highly inefficient, or even counterproductive, way of redistributing income from rich or poor. If subsidies are to be used to create more equitable access, a strong case can be made for targeted subsidies, e.g., scholarships and/or loan guarantees available only to students from low-income families. In this context, a combination of targeted subsidies and rationing access by marks may represent a sensible way of promoting both equity and efficiency (if secondary school marks are correlated with a student's ability to gain productivity through education).

The subsidy issue arises also with respect to educational quality. Here we argue that the most efficient way of raising quality is probably to design an incentive system which rewards institutions on the basis of the performance of their graduates. This would give institutions an incentive to make efficient use of all inputs into the production of education services, while a strategy of subsidizing quality by means of subsidies to particular inputs will create distortions in the production process. A problem with a performance-based strategy, however, is that it may have a regressive distributional impact, since students from high-income families are more likely to perform well in examinations and therefore indirectly benefit from such subsidies.

Finally, there are certain important government policies which do not directly effect the education system, but which are likely to have a very significant indirect impact because they affect the labor market for graduates

from the post-secondary system. These policies involve such things as labor market legislation, and the behavior of the government as an employer. Inappropriate policies with respect to this market may have contributed to problems of graduate unemployment, credentialism, and a generally swollen bureaucracy in some countries. In turn, these factors have contributed to creating a wedge between the social and private profitability of higher education, with consequences that have been outlined above. Government policies in these areas may be at least as important in influencing the functioning of the higher education system as various forms of direct regulation or subsidy.

I. INTRODUCTION

Tertiary education in developing countries confronts a number of critical problems today. One is the availability of resources. Many developing countries have tighter budgetary constraints as they adjust to macroeconomic conditions. This has impinged on higher education since the public sector plays a predominant role in its financing and provision.

Another problem concerns the public sector's effectiveness in providing the type and quality of education needed for economic development. Quality is often considered to be low and deteriorating.^{1/} Moreover, many educational systems cannot match its graduates with the economy's labor force requirements. Some countries confront a worsening problem in graduate unemployment; others cannot fill the demand for skills in some disciplines; and in many countries, both phenomena can be observed.

Finally, public subsidies to higher education may have a regressive distributional impact. Despite massive expansion, higher education in many countries continues to be relatively inaccessible to students from poor families.^{2/}

One approach to these problems is to seek improvements in the financing, efficiency and equity of publicly-provided higher education. These issues have already been discussed in other World Bank documents.^{3/} Another approach, which is the one considered in this paper, is to expand the role of the private sector in the production of education. Although there are no

^{1/} For general discussions of the problem of educational quality in developing countries, see World Bank (1985), Ch. 4; Psacharopoulos and Woodhall (1985), Ch. 8.

^{2/} There is now an extensive literature on the relationship between educational policy and equity. For general surveys see Psacharopoulos and Woodhall (1985), Ch. 9; Fields (1980; Jimenez (1986).

^{3/} For comprehensive discussions of pricing policies and cost recovery in public education, see Jimenez (1987) and Psacharopoulos, Tan, and Jimenez (1986).

private institutions of higher learning in most developing countries, they are prevalent in some, particularly in Asia and Latin America. In these countries, their role and importance vary substantially. What lessons can be learned from these countries regarding the role of the private sector in higher education? More importantly, what types of government policies should be used in order to make the operation of the private-sector subsystem consistent with the social objectives for the post-secondary education system as a whole?

This paper discusses these issues and reviews the relevant literature. It is organized as follows. In Section II, we give a brief descriptive overview of the role of private-sector post-secondary education in developing countries. In Section III, we review various factors that influence demand and supply in a system of private higher education, and discuss different ways in which a system driven by private demand and supply may conflict with the goals of society as a whole in the post-secondary education area. This discussion serves to pinpoint a number of areas where there is a prima facie case for government intervention to influence the operation of the private higher education sector (through subsidies, quality regulation, and so on). Section IV discusses policy issues when private education does exist. In this context, we do not try to derive precise prescriptions, which we believe to be country specific. Rather, we discuss general issues that are relevant when forming policy. Finally, Section V contains a brief summary.

II. OVERVIEW OF PRIVATE HIGHER EDUCATION IN DEVELOPING COUNTRIES

How extensive is the role of the private sector in providing higher education in developing countries? Although systematic data are unavailable, this section presents a summary of available information in a selected group of countries in East Asia and Latin America. It is based on a review of published or unpublished works dealing with the functioning of higher

education systems in developing countries, and on World Bank staff appraisal reports for projects relating to higher education.^{4/}

To differentiate between public and private higher education institutions we use UNESCO's definitions. A public sector educational institution is defined as: "... a school operated by a public authority (national, federal, state or provincial, or local) whatever the origin of the resources." A private school is defined as: "... a school not operated by a public authority, whether or not it receives financial support from such authorities. Private schools may be defined as aided or non-aided, respectively, according as they derive or do not derive financial support from public authorities." "Higher education" is used to refer to universities and equivalent institutes with programs leading to a bachelor's or graduate degree. This excludes colleges and certain post-secondary institutions below the university level.

Data about student enrollment in private and public institutions providing higher education in a group of twenty Latin American countries, and from a select group of five Asian countries (Indonesia, Korea, Philippines, Malaysia, and Thailand) are presented in Table 1 and 2 respectively. The data show a very mixed pattern in terms of the private-public composition of total enrollment, and in the relative growth rates of the two subsectors.

In the case of the Latin American countries included in the sample, there is a clear trend toward a growing importance of the share of private institutions. Enrollment in private universities has grown especially rapidly since the mid-1960s, increasing from around 20% to about one-third of the total enrollment at the end of the 1970s and the beginning of the 1980s.

^{4/} This section is based on an unpublished working paper prepared by Ruben M. Suarez-Berenguela for the World Bank Education and Training Department, January 1987. Among the published works, the book by Levy on private higher education in Latin America stands out.

Table 1
Enrollment in Private Post-secondary Institutions
in Latin America (Percent of total enrollment)

	Latin America	Excluding Brazil
1955	14.2	7.3
1960	15.4	9.2
1965	20.0	14.7
1970	29.6	19.6
1975	33.7	19.1

Source: Based on Levy (1986)

Even excluding Brazil, the country with the largest population and largest proportion of students enrolled in private sector institutions, a general trend toward a greater role for private institutions is apparent. In Colombia in 1981, enrollment in private universities accounted for approximately 60% of the total enrollment in universities and equivalent institutes. Around 1980 the share of student enrollment in private universities represented 39% in Chile, and around 30% in Paraguay and Peru. However, in other Latin American countries the private sector shares are lower: in Cuba, Bolivia, Nicaragua, Panama, and Uruguay, enrollment in private sector institutions is less than 5% of the total enrollment.

Among the Asian countries in the sample (Table 2), there are three in which enrollment in private higher education institutions represents more than 50% of the total: Indonesia, Korea, and the Philippines. On the other hand, in Malaysia and Thailand the share of private enrollment is less than 25%. In Malaysia in 1984 approximately 50% of the enrollment in post-secondary institutions was in universities and equivalent institutes. Enrollment in private-sector institutions represented only around 23% of the total in this type of higher education institutions. In the case of Thailand, enrollment in private sector institutions represented around 4.1% of the registered enrollment in higher education institutions under the supervision of the Ministry of University Affairs. However, it is not clear from the

sources whether or not the data include students enrolled in "open universities." Thus, the estimate for this case may be misleading as well, since a large proportion of post-secondary enrollment is in open universities.

Table 2
Asian Countries, Share of Private Institutions in
Total Enrollment

Country	Year	Type of Institutions	Private enrollment as % of the total
Indonesia	1982	HEI	52.9
Korea	1983	HES	75.0
Philippines	1975	HE	90.1
Malaysia	1984	Univ. & Equiv. Inst.*	22.9
Thailand	1982	HEI-MUA	4.1

- HEI: Higher education institutions, including tertiary institutions: universities, colleges, academies and institutes.
- HES: Higher education sector: junior colleges, university colleges, and post graduate programs.
- HE: Higher education institutions seem to refer to universities and equivalent institutes.
- (*) Approximately 50 percent of the enrollment in post-secondary higher education institutions.
- HEI-MUA: Higher education institutions under the supervision of the Ministry of University Affairs (MUA). Private or Public nature of "open" universities is not well defined.

Sources: Based on data from various World Bank reports.

Table 3 summarizes the trends and actual shares of enrollment in private higher education institutions in the Latin American and Asian countries discussed above.

Table 3
Trends and/or Actual Share of Enrollment in Private Higher
Education Institutions. Selected developing countries
(circa 1980)

Non-existent, Minor and/or not growing	More than 10% but less than 50% Not growing	Growing Rapidly	More than 50% of total enrollment
Cuba, Bolivia, Nicaragua, Panama, Costa Rica, Haiti, Honduras, Uruguay,	Chile, Mexico, Venezuela	Argentina, Ecuador, Colombia, Dominican Republic, Guatemala, Peru, Indonesia	Indonesia, Korea, Philippines, Brazil, Colombia

Sources: Same as for Tables 1, 2

Table 4 presents information on the fields of specialization offered by public and private institutions in selected Latin American countries. As the Table indicates, private universities in these countries tend to specialize in offering degrees in the areas of economics, business administration, and humanities. Public institutions, on the other hand, tend to specialize in fields where education is relatively more expensive, such as those that require many years of schooling, and more investment in capital equipment. Examples are medicine, natural ("exact") sciences, and engineering.

More detailed data on enrollment by fields of specialization in Latin American universities are, by and large, consistent with the picture provided by Table 4. Student enrollment in medicine, engineering, and natural sciences is a considerably higher proportion of total enrollment in public than in private universities. Within private universities, a large proportion of students are enrolled in the humanities, and in commercial, social and behavioral sciences programmes.

Table 4
Enrollment by Field of Specialization Selected Countries
Percent of Total Enrollment, Private/Public Universities

	Com.	Hum.	Law	Med.	Sci./Eng.
Bolivia	58/10	12/2	0/8	0/21	0/38
Colombia	37/10	5/7	16/4	4/9	21/38
Ecuador	23/18	9/6	6/6	1/11	11/22
Mexico	35/20	1/2	6/9	20/20	18/28
Peru	47/23	7/0	5/4	1/7	14/33

"Com.": Economics, Business Administration and Communications

"Hum.": Humanities

"Law": Law

"Med.": Medicine

"Sci./Eng.": Exact sciences and Engineering

III. THE ROLE OF GOVERNMENT IN PRIVATE HIGHER EDUCATION

Social goals for the educational system may be defined in somewhat different ways.^{5/} To what extent can we expect a private system of post-secondary education to operate in a way that is consistent with these social goals? In other words, would an unregulated and unsubsidized system of private higher education automatically be efficient, that is, provide the right kinds of educational services (in terms of both quantity and quality)? Would it operate in a way consistent with society's equity objectives?

With respect to efficiency, government intervention is needed when there is a conflict between the private profitability, and the profitability from the viewpoint of society as a whole, of investments in higher

^{5/} See James (1986a).

education.^{6/} Such a conflict can arise for a number of reasons on both the demand and supply side. Many of these issues are discussed in an earlier paper (Blomqvist 1986) and are only summarized here.

A. Imperfections on the Demand Side

Externalities, imperfect credit markets, and risk. These characteristics cause social and private returns to diverge. Positive externalities arise when a graduate's contribution to national well-being is greater than his/her wage. The conclusion that this was the case appeared especially warranted in newly independent countries of the 1960s where the departure of many expatriate educated workers had exacerbated the shortage of such manpower.^{7/} Moreover, a large proportion of manpower with higher education was employed in the public sector. Therefore, its contribution to national income took the form of government administrative services and other "public goods" which are necessary for a society to function, but which are not bought and sold in the market and therefore cannot be given a very precise monetary value.

The implicit discount rate used by prospective students and their families in comparing the cost of an education today with the prospects of increased future earnings, may not be the same as the social discount rate. Decisions in the area of education and career choice require forecasting far into the future. Since the degree of uncertainty associated with predicting the future is likely to increase with the time horizon involved, this means that such investment choices will be perceived as risky, especially in fields

^{6/} A set of international estimates of both private and social rates of return to education at all levels is provided in Psacharopoulos (1981). Psacharopoulos (1982) focuses on the returns to post-secondary education in particular.

^{7/} The excerpts from two early essays by Harbison in Meier's anthology of readings in development economics (Harbison, 1984) represent a clear statement of the view that emphasizes the critical importance of highly educated manpower for the development process.

where the human capital acquired during training is very specific.^{8/} Thus risk-averse students (or students from risk-averse families) may be reluctant to finance education even if it has a high expected value from society's point of view: this is the equivalent of students' using a higher discount rate in their private profitability calculation than would be appropriate from society's point of view.

Even when students are willing to take the risk, they may find it difficult to raise the necessary funds. Since human capital cannot be used as collateral for a loan, lenders are likely to be more reluctant to lend for human capital formation. Also, a student's success in school cannot be perfectly predicted, thus dissuading risk-averse individuals from particular types of human capital investment, even those that have a high social value. The factors discussed above would all tend to make social profitability exceed private, and hence lead to a general tendency to underinvestment in post-secondary education in the absence of government intervention.

Education and heterogeneity of individual ability.^{2/} The interdependence between individual abilities and the prospective return to education is likely to create complications for the design of policy toward private higher education, especially if we recognize that an individual's personal characteristics are known only imperfectly, and can sometimes only be ascertained at high cost and over a long period of time. Suppose it is true that many of the skills and abilities that explain the superior productivity and higher incomes of educated individuals in particular jobs are innate, rather than acquired through education. This does not necessarily mean that education is a waste from the individual's point of view. For one thing, education may contribute to the student's ability to identify the particular

^{8/} The problems caused by the long time horizon in educational investments are emphasized in Musgrave (1966) and Harbison (1984).

^{2/} The empirical and theoretical problems that arise for human capital theory when individual heterogeneity is recognized, are stressed in Blaug (1976); see also the survey in Blomqvist (1986).

job for which his or her particular characteristics would be best suited, if jobs are heterogenous as well as individuals. Or, the diploma and other evidence of performance the individual obtained in the educational system maybe interpreted by employers as evidence of the person's superior ability for a given job, and therefore make them willing to offer the person a higher wage. In either case, education would have had a payoff to the individual, even though it might not in itself have created most of the individual's productive skills: the production of information about individual characteristics would still mean that there would be a private demand for education even if no skills were acquired through it.

In either of these two examples, the idea that it is costly and difficult to get information about individual characteristics in other ways than through education, is central to the argument. If it were possible to accurately measure individual's abilities through a simple test, or if they could be accurately ascertained by employers on the basis of a short period of probationary employment, there would be no need to use the educational system as a way of measuring these abilities. However, if reliable testing methods are not available, and costs of labor turnover are high so that probationary employment is a costly measurement method, then the formal education system may substitute for these other methods as a mechanism for producing this information. Because the information is valuable to employers, individuals who have had their abilities certified through the educational system could generate better wage offers in the labor market, so that education would continue to be privately profitable.

However, even though there would continue to be a demand for education because of its private profitability, the economy as a whole might derive little or no benefits since individuals' productivity would (by hypothesis) depend only on pre-existing abilities that would be present even without education. This type of divergence between social and private profitability is the central one in the so-called "screening" or "signalling"

approach to the economic analysis of education that emerged in the 1970s as an alternative to the human capital approach.^{10/}

Graduate unemployment, credentialism, and the demand for higher education. In many developing countries, the rapid expansion of post-secondary education in recent years has been accompanied by a growing problem of unemployment of the graduates of post-secondary institutions. Furthermore, there has also been considerable evidence in many places of so-called "credentialism"; that is, a tendency toward increases in the minimum educational qualifications for particular jobs so that, for example, a university degree is now required for jobs previously filled by secondary school graduates.^{11/} Finally, there have been suggestions that in some countries there is "hidden unemployment" of post-secondary graduates, as a result of government employment of graduates in unproductive jobs created primarily for the purpose of alleviating the problem of graduate unemployment.^{12/}

Phenomena such as credentialism and graduate unemployment are indicative of inflexibilities in the markets for educated labor. Such inflexibilities in turn suggest that there may be a divergence between the private profitability of education and its productivity from the viewpoint of society as a whole. Again, this would suggest that an unregulated private education system might expand more than would be in society's interest, calling for restrictive policies.

^{10/} Early contributors to this literature were Arrow (1973) and Spence (1973). For a further review see Blomqvist (1986).

^{11/} Dore (1976) presents an extensive discussion of the credentialism phenomenon. A careful analysis of its economic effects is contained in Bhagwati and Srinivasan (1977).

^{12/} Blomqvist (1982) analyzes a model in which the government is assumed to act as the residual employer of educated labor.

Private demand and the quality of education. Is there a tendency for the private and social benefits of educational quality to differ?

The significance of the quality dimension differs substantially depending on whether education is regarded as a process of human capital accumulation, or as a process whose primary purpose is to generate information about inherent individual characteristics. Consider first the case where education is seen primarily as human capital accumulation. There may be differences between students in terms of the quality-cost combination they prefer. For example, the value of additional institutional inputs (such as instruction time), in terms of improved performance and future productivity, may be higher for students with greater ability. If this is so, there may be a systematic tendency for inherently better students to gravitate toward high-quality institutions, and vice versa. Moreover, students learn from each other. Other things equal, this may reinforce the tendency for students to naturally get sorted into institutions according to their differential ability. Such an outcome--that there is a range of institutions offering educational services of different degrees of quality and cost--may be economically efficient.

When education is seen primarily as providing information about pre-existing abilities, the valuation of the inputs provided by the institution does not depend on the productivity of these inputs in creating human capital. Instead, their value (from the student's point of view) depends on their contribution to the institution's reputation as a "screen". Factors such as student-teacher ratios, the qualifications of the instructors, etc., will, presumably, improve the accuracy of the screening process (the signal). At the same time, an institution that provides large amounts of inputs into the education process (e.g., by maintaining a low student-teacher ratio) may suffer: it may lead to an interpretation of its students' performance as being due to the high quality of the school's inputs, rather than to the inherent ability of the students.